

Todd C. Mowry
Application No.: 09/804,677
Page 4

PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please cancel claims 1-19, and add new claims 20-31, as follows:

- 1 20. (New) A method comprising:
2 issuing an instruction, wherein said instruction includes a hint
3 field, a base field and an offset field;
4 forming an address to access data in a cache, wherein said address
5 is formed by using information contained in said offset and base fields; and
6 prefetching said data, when unavailable in said cache, in
7 accordance with hint information contained in said hint field, wherein said hint
8 information indicates an expected use of said data and a destination.
- 1 21. (New) The method of claim 20 wherein said address is a virtual
2 address.
- 1 22. (New) The method of claim 20 wherein said hint information
2 indicates said data is expected to be not reused extensively and directs said data to a
3 certain way destination in said cache.
- 1 23. (New) The method of claim 20 wherein said hint information
2 indicates said data is expected to be reused extensively and directs said data to a certain
3 way destination in said cache.
- 1 24. (New) The method of claim 20 wherein said hint information
2 directs said data to (a) a first way destination when said data is expected to be not reused
3 extensively, and (b) a second way destination when said data is expected to be reused
4 extensively.
- 1 25. (New) The method of claim 20 wherein said hint information
2 directs said data to (a) a first way destination when said data is expected to be loaded but
3 not reused extensively or said data is expected to be stored or modified but not reused

Todd C. Mowry
Application No.: 09/804,677
Page 6

PATENT

4 extensively, and (b) a second way destination when said data is expected to be loaded and
5 reused extensively or said data is expected to be stored or modified and reused
6 extensively.

1 26. (New) A method comprising:
2 issuing an instruction, wherein said instruction includes a hint
3 field, a base field and an index field;
4 forming an address to access data in a cache, wherein said address
5 is formed by using information contained in said index and base fields; and
6 prefetching said data, when unavailable in said cache, in
7 accordance with hint information contained in said hint field, wherein said hint
8 information indicates an expected use of said data and a destination.

1 27. (New) The method of claim 26 wherein said address is a virtual
2 address.

1 28. (New) The method of claim 26 wherein said hint information
2 indicates said data is expected to be not reused extensively and directs said data to a
3 certain way destination in said cache.

1 29. (New) The method of claim 26 wherein said hint information
2 indicates said data is expected to be reused extensively and directs said data to a certain
3 way destination in said cache.

1 30. (New) The method of claim 26 wherein said hint information
2 directs said data to (a) a first way destination when said data is expected to be not reused
3 extensively, and (b) a second way destination when said data is expected to be reused
4 extensively.

1 31. (New) The method of claim 26 wherein said hint information
2 directs said data to (a) a first way destination when said data is expected to be loaded but
3 not reused extensively or said data is expected to be stored or modified but not reused

Todd C. Mowry
Application No.: 09/804,677
Page 7

PATENT

- 4 extensively, and (b) a second way destination when data is expected to be loaded and
- 5 reused extensively or said data is expected to be stored or modified and reused
- 6 extensively.